

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Cancelled).

2. (Cancelled).

3. (Currently amended) A microscope optical system ~~according to claim 2, comprising:~~

an objective lens; and

an intermediate magnification varying part disposed just after an image side of said objective lens,

wherein said intermediate magnification varying part includes a lens group having a positive refractive power and a lens group having a negative refractive power,

in a high magnification variation state, said lens group having a positive refractive power is disposed just after the image side of objective lens, while in a low magnification variation state, said lens group having a negative refractive power is disposed just after the image side of the objective lens, and

said intermediate, magnification varying part is constructed in such a way that its optical system is

rotatable relative to the objective lens with an axis substantially orthogonal to an optical axis being a rotation axis.

4. (Original) A microscope optical system according to claim 3, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

5. (Currently Amended) A microscope optical system ~~according to claim 1,~~ comprising:

an objective lens; and

an intermediate magnification varying part disposed just after an image side of said objective lens,

wherein said intermediate magnification varying part is constructed in such a way that its optical system is rotatable relative to the objective lens with an axis substantially orthogonal to an optical axis being a rotation axis.

6. (Currently amended) A microscope optical system according to claim ~~[[1]]~~ 5, wherein said microscope

optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

7. (Currently amended) A microscope optical system according to claim [[2]]_3, wherein a magnification in said high magnification variation state is α and a magnification in said low magnification variation state is $1/\alpha$.

8. (Currently amended) A microscope optical system according to claim [[4]]_7, wherein said magnification α satisfies $1.25 \leq \alpha \leq 2.5$.

9. (Cancelled).

10. (Original) A microscope optical system according to claim 7, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

11. (Original) A microscope optical system according to claim 8, wherein said microscope optical system is provided with a connecting portion on the image side of said intermediate magnification varying part and the microscope optical system can be connected with a body of a microscope by means of said connecting portion.

12. (Withdrawn) A microscope objective lens comprising, in the following order from the object side, a first lens group and a second lens group, wherein:

said first lens group includes a positive meniscus lens with the concave surface facing the object side and one or more cemented lenses, said first lens group having a positive refractive power as a whole;

at least one of said cemented lenses includes a lens made of a material having an Abbe's number equal to or larger than 80; and

the following conditions are satisfied:

$$0.3 \leq wd/f \leq 0.45$$

$$0.6 \leq NA$$

where, f represents the focal length of said microscope objective lens as a whole, wd represents the working distance of said microscope objective lens, and NA

represents the numerical aperture of said microscope objective lens.

13. (Withdrawn) A microscope objective lens according to claim 12, wherein said microscope objective lens has a magnification of 20x.

14. (Withdrawn) A microscope objective lens according to claim 13, wherein at least one of said cemented lenses comprises a cemented lens composed of three lens elements.

15. (Withdrawn) A microscope objective lens according to claim 14, wherein said lens made of a material having an Abbe's number equal to or larger than 80 is made of fluorite.

16. (Withdrawn) A microscope objective lens according to claim 12, wherein at least one of said cemented lenses comprises a cemented lens composed of three lens elements.

17. (Withdrawn) A microscope objective lens according to claim 16, wherein said lens made of a

material having an Abbe's number equal to or larger than 80 is made of fluorite.

18. (Withdrawn) A microscope objective lens according to claim 13, wherein said lens made of a material having an Abbe's number equal to or larger than 80 is made of fluorite.

19. (Currently amended) A microscope optical system according to claim [[1]]_3, wherein:

said objective lens comprises, in the following order from the object side, a first lens group and a second lens group;

said first lens group includes a positive meniscus lens with the concave surface facing the object side and one or more cemented lenses, said first lens group having a positive refractive power as a whole;

at least one of said cemented lenses includes a lens made of a material having an Abbe's number equal to or larger than 80; and

the following conditions are satisfied:

$$0.3 \leq wd/f \leq 0.45$$

$$0.6 \leq NA$$

where, f represents the focal length of said microscope objective lens as a whole, wd represents the working distance of said microscope objective lens, and NA represents the numerical aperture of said microscope objective lens.

20. (New) A microscope optical system according to claim 5, wherein a magnification in said high magnification variation state is α and a magnification in said low magnification variation state is $1/\alpha$.

21. (New) A microscope optical system according to claim 20, wherein said magnification α satisfies $1.25 \leq \alpha \leq 2.5$.

22. (New) A microscope optical system according to claim 5, wherein:

said objective lens comprises, in the following order from the object side, a first lens group and a second lens group;

said first lens group includes a positive meniscus lens with the concave surface facing the object side and one or more cemented lenses, said first lens group having a positive refractive power as a whole;

at least one of said cemented lenses includes a lens made of a material having an Abbe's number equal to or larger than 80; and

the following conditions are satisfied:

$$0.3 \leq wd/f \leq 0.45$$

$$0.6 \leq NA$$

where, f represents the focal length of said microscope objective lens as a whole, wd represents the working distance of said microscope objective lens, and NA represents the numerical aperture of said microscope objective lens.